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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,885	10/14/2003	Oh-Dal Kwon	5000-1-444	4849
33942	7590	07/05/2006	EXAMINER	
CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652			WOOD, KEVIN S	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/684,885

Applicant(s)

KWON ET AL.

Examiner

Kevin S. Wood

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,11,12 and 14 is/are rejected.
- 7) ☒ Claim(s) 6, 9, 10, 13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/15/06.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.



## **FINAL REJECTION**

### ***Response to Amendment***

1. This action is responsive to the Amendment received on 13 June 2006. Claim 1 has been amended. Claims 16-23 have been previously withdrawn as claims directed to a non-elected invention. Claims 1-15 are pending in the application.
2. The previous Rejection mailed on 8 March 2006 was a Non-Final Rejection. The examiner mistakenly listed the action as a Final Rejection in the office action summary sheet. The examiner apologizes for any inconvenience that this error has caused.

### ***Response to Arguments***

3. Applicant's arguments, filed 13 June 2006, with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection which was necessitated by the amendment to claim 1.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 7, 8, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,438,280 to Gampp et al.

Referring to claim 1, the Gampp et al. reference discloses all the limitations of the claimed invention. The Gampp et al. reference discloses an optical module, having: a substrate (16); an optical waveguide having an optical coupling portion (12) that is formed on at least a portion of the substrate to perform a transmission of the optical signals, and an inclined surface (183) that is disposed on a lateral side of the coupling portion (12) and inclined with respect to an end surface (18) of the optical coupling portion, the waveguide being adapted for connection with a plurality of optical devices; and a light blocking layer formed over the inclined surface, the light blocking layer preventing light from entering the optical devices when coupled to the optical waveguide through regions other than the optical waveguide. See Fig. 1-16 of the Gampp et al. reference. Fig. 15 discloses all the limitations of the claimed invention.

Referring to claims 2, 3 and 5, the Gampp et al. reference discloses all the limitations of the claimed invention. The Gampp et al. reference discloses the plurality of optical devices (13,14) may be mounted on the substrate (16). See Fig. 1-16 of the Gampp et al. reference. Fig. 15 discloses all the limitations of the claimed invention.

Referring to claim 7, the Gampp et al. reference discloses all the limitations of the claimed invention. The Gampp et al. reference discloses an end surface of the optical coupling portion centrally provided in the optical waveguide (12) is protruded relative to the light blocking layer (183). See Fig. 1-16 of the Gampp et al. reference. Fig. 15 discloses all the limitations of the claimed invention.

Referring to claim 8, the Gampp et al. reference discloses all the limitations of the claimed invention. The Gampp et al. reference discloses the waveguide (12) comprises

an end surface (18) of the optical coupling portion centrally provided that is formed substantially perpendicular to an upper surface of the substrate (16). See Fig. 1-16 of the Gampp et al. reference. Fig. 15 discloses all the limitations of the claimed invention.

Referring to claims 11 and 12, the Gampp et al. reference discloses all the limitations of the claimed invention. The Gampp et al. reference discloses the the light blocking layer may be a metal layer or mirror material. See Fig. 1-16 of the Gampp et al. reference. Fig. 15 discloses all the limitations of the claimed invention.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,438,280 to Gampp et al. in view of U.S. Patent No. 6,445,857 to Korenga et al.

Referring to claim 4, the Gampp et al. reference discloses all the limitations of the claimed invention except the Gampp et al. does not appear to specifically disclose a wavelength selective filter being a multi-layer thin film filter and that it is substantially perpendicular to the optical waveguide. The Korenga et al. reference discloses a multi-layer thin film filter (110) for wavelength selection, where the thin film filter allows transmits light having a first wavelength while reflecting light having a different wavelength. The Korenga et al. reference also discloses that the thin film filter is set substantially perpendicular to the optical waveguide (12). See Fig. 1-5 of the Korenga et al. reference along with their respective portions of the specification. Since the Gampp et al. reference and the Korenga et al. reference are all from the same field of endeavor, the purpose disclosed by Korenga et al. would have been recognized in the pertinent art of Gampp et al. and Hashimoto et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a multi-layer thin film filter, set substantially perpendicular to the waveguide, as a wavelength selective filter for use in the Gampp et al. device for the purpose of allowing a specific wavelength continue through the waveguide, while reflecting another wavelength towards the receiver (PD).

Referring to claim 14, the Gampp et al. reference discloses all the limitations of the claimed invention except the Gampp et al. does not appear to specifically disclose the waveguide comprises a core layer and a cladding layer. The Korenga et al. reference discloses an optical waveguide module similar to the Gampp et al. reference, where the waveguide has a core layer and a cladding layer surrounding the core layer, for the purpose of ensuring that the optical signals are efficiently transmitted along with optical waveguide. Since the Gampp et al. reference and the Korenga et al. reference are both from the same field of endeavor. The purpose disclosed by the Korenga et al. reference would have been recognized within the pertinent art of the Gampp et al. reference. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a core layer and a cladding layer surrounding the core layer to form the optical waveguide, since it would ensure that the optical signals are transmitted efficiently along the optical waveguide.

#### ***Allowable Subject Matter***

9. Claims 6, 9, 10, 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2874

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Kevin S. Wood". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Kevin S. Wood  
Patent Examiner